Revision I dd 05.10.21

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Commercial name	CARBO FAST FAGC3PTV
Product code	217
Registration number	A registration number is not available for this product as it is a mixture

1.2 Relevant identified uses of the substance or mixture and uses advised against

Intended uses	Catalyst for synthesis. Industrial use
Advised against uses	None

1.3 Details of the supplier of the safety data sheet

Name	FAGGI ENRICO S.P.A.
Adress	Via Majorana, 101/103 50019 Sesto Fiorentino FI
Telephone number	055311861
Fax number	055311791
Competent person responsible for the safety data sheet	lorenzo.magaldi@faggi.it

1.4 Emergency telephone number

Ph. 0557947819 Poison Control Center of Florence

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

The product is classified as dangerous pursuant to the provisions of Regulation (CE) 1272/08 (CLP) and s.m.i. The product therefore requires a safety data sheet compliant with the provisions of Regulation (CE) 1907/06 and subsequent amendments. Any additional information regarding risks to health and / or the environment are reported in sections 11 and 12 of this safety sheet.

Hazard classes	Category codes	Hazard statements
Repr.	2	H361
STOT RE	1	H372
Aquatic chronic	2	H411

2.2 Label elements

Pictograms

Signal words **DANGEROUS**

Hazard statements

H361	**Suspected of damaging fertility or the unborn child**
H372	**Causes damage to organs through prolonged or repeated exposure**
H411	**Toxic to aquatic life with long lasting effects**

	Precautionary statements	P260	Do not breathe dust/fume/gas/mist/vapours / spray.
		P263	Avoid contact during pregnancy and while nursing.
		P264	Wash hands thoroughly after handling
		P270	Do not eat, drink or smoke when using this product.
		P273	Avoid release to the environment
		P391	Collect spillage.

2.3 Other hazards

Under certain conditions, the mixture of coal dust and air can give rise to an explosive atmosphere. Damp coal removes oxygen from the air, causing serious dangers for people in low oxygen environments.
It does NOT contain PBT / vPvB substances according to Regulation (EC) 1907/2006, annex XIII.
It does NOT contain substances that interfere with the endocrine system in accordance with Regulation (EC) 1907/2006 art.59 paragraph 1 and in accordance with the criteria established in Regulation (EU) 2017/2100 and Regulation (EU) 2018/605.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Product identifier	**Concentration %**	**Classification**	
		Hazard classes	**Category codes**
Active Carbon CAS 7440-44-0 EC: 931-328-0 N. Reach: 01-2119488894-16-XXXX	**93.6 – 95.5**	None	None
Platinum CAS 7440-06-4 EC: 231-116-1 N.Reach: 01-2120733612-61-XXXX	**0.5 – 1.5**	None	None
Ammonium monovanadate CAS 7803-55-6 EC: 232-261-3 N.Reach: exempt for quantity M factor chronic toxicity: 1	**4.0 – 4.9**	Acute tox. 3 Eye Irr. 2 Acute tox. 4 Repr. 2 STOT RE 1 Aquatic Chronic 2	H301 H319 H332 H361 H372 H411

4. FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation	Remove from exposure to fresh air. If breathing is difficult call a doctor immediately.
Ingestion	Wash out mouth and give to drink two glasses of water.
Skin contact	Remove contaminated clothing and shoes and wash immediately and abundantly with water for at least 15 minutes. Get medical attention if irritation occurs. Wash clothing before reuse. Thoroughly clean shoes before using them again
Eye contact	Remove contact lenses. Wash immediately with plenty of water for at least 15 minutes, opening the eyes. Consult a doctor if symptoms persist.

Reccomendation:

- **Need to see a doctor immediately** **YES**
- **Possibility of delayed effects following exposure** **YES**
- **Move the exposed individual from the place of exposure to the open air** **YES**
- **Remove the clothing and shoes of the exposed individual** **YES**
- **How to handle contaminated clothing** **With gloves**
- **For those providing first aid, wear PPE** **YES**

4.2 Most important symptoms and effects, both acute and delayed

For ammonium salts the following applies in general: after ingestion: local irritation, illness, vomiting, diarrhea. Systemic action: after ingestion of large quantities, pressure drop, collapse, CNS disorders, cramps, states of narcosis, lack of narcosis, haemolysis.
Vanadium and its compounds cause: irritation after contact with the eyes and skin, irritation of the mucous membranes, cough and dyspnoea after inhalation. After the absorption of toxic quantities there are changes in the blood picture, weight loss and cardiovascular disorders.

4.3 Indication of any immediate medical attention and special treatment needed

There are no known specific provisions

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: water spray, foam
Non suitable extinguishing media: none in particular

5.2 Special hazards arising from the substance or mixture

Under certain conditions, the mixture of coal dust and air can give rise to an explosive atmosphere. If involved in a fire it can release toxic vapors of nitrogen oxides, ammonia, carbon monoxide.

5.3 Advice for firefighters

Avoid raising dust clouds. Normal clothes to fight the fire, like a compressed air breathing apparatus open circuit (EN137), complete with flame retardant (EN469), flame-resistant gloves (EN659) and boots for firefighters (HOA29 or A30).

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures

6.1.1. For non-emergency personnel

Keep away in case of dust clouds

6.1.2. For emergency responders

In case of dry product use a protective breathing (P2 filter) mask, and dust-proof gloves.

6.2 Environmental precautions

Prevent the cleaning water from the spill from entering water drains, sewers, groundwater.

6.3 Methods and material for containment and cleaning up

6.3.1. Advice in order to contain a spill

Recover the product dispersed and wash the residue with plenty of water. Avoid creating dusts.

6.3.2. Advice in order to clean-up a spill

Spill cleaning water must not be discharged into sewers. Dispose of contaminated water and residue according to current regulations. To avoid dust formation, spray water before cleaning.

6.4 Reference to other sections

None

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. Raccomentations in order to manipulate the substance or the mixture in a safe manner, such as containement measures and prevention of fire and aereosol and powders formation

Avoid raising dust clouds especially in the presence of possible sources of ignition. Wet activated carbon removes oxygen from the air, causing serious dangers for people in low-oxygen environments. Appropriate work procedures must be followed for operations in low oxygen potential environments. Use under a hood.

7.1.2. General recommendation on work hygiene

Do not eat, drink or smoke in work areas; wash hands thoroughly after use and remove contaminated clothing and protective equipment before entering areas where you eat.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Risk management associated with explosive atmospheres, corrosive conditions, flammability hazards, incompatible substances or mixtures, evaporative conditions, potential ignition sources

Store in closed original container. Store in a well-ventilated, cool, and dry place.

7.2.3. Control of weather conditions, ambient pressure, temperature, sunlight, humidity, and vibration

Store in the original container

7.2.4. Conditions for keeping substances / mixtures intact

Keep away from oxidizing, unsaturated oils, gases or vapors, direct sources of heat, naked flames and other sources of ignition and direct sunlight.

7.2.5. Advice regarding the ventilation, specific design for storage rooms or vessels, quantity limits under storage conditions, packaging compatibilities

None in particular

7.3. Specific end use(s)

Industrial use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No occupational and biological exposure limits have been established for this mixture.
The limit values established for the contained substance are listed below:
Activated carbon
Germany: air limit value- breathable fraction: 1,5 mg/m^3 (long-term)
Germany: air limit value – breathable fraction: 4 mg/m^3 (long-term)
DNEL long-term temporary inhalation (repeated):

Industry workers: 3 mg/m^3
Professional workers: 3 mg/m^3
Consumers: 0,5 mg/m^3

8.2. Exposure controls

8.2.1. Appropriate engineering controls

If moist, with low dust levels, does not require any measure of risk management

8.2.2. Individual protection measures, such as personal protective equipment

Eye/face protection	Glasses
Skin protection (hands)	Gloves
Skin protection (body)	Work clothes
Respiratory protection	If moist, with low dust levels, does not require any measure of risk management
Thermal hazards	None

8.2.3. Environmental exposure controls

Emissions from the production processes, including those from ventilation should be monitored for the purposes of compliance with environmental protection.
Do not let the product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Powderly solid
Colour	Black
Odour	Odourless
Melting point/freezing point	Odorless
Boiling point or initial boiling point and boiling range	Non applicable
Flammability	The product must be kept moist. In the dry state it can generate flammable atmospheres with air
Lower and upper explosion limit	Lower explosion limit: 20 g/m^3
Flash point	Not applicable
Auto-ignition temperature	At dry status: 460 °C
Decomposition temperature	Not applicable
pH	6 – 7 a 50 g/l e 20 °C (dough)
Kinematic viscosity	Not applicable

Solubility	Insoluble in water
Partition coefficient n-octanol/water (log value)	Not applicable
Vapour pressure	Not available
Density and/or relative density	4 g/cm^3
Relative vapour density	Non applicable
Particle characteristics	Particle size D_{10}: 6 µm Particle size D_{50}: 20 µm Particle size D_{90}: 80 µm

9.2. Other information

None

10. STABILITY AND REACTIVITY

10.1 Reactivity

Catalytic properties

10.2 Chemical stability

This product does not show reactivity in the conditions of storage, shipment and use as specified.

10.3 Possibility of hazardous reactions

Flammable at dry status

10.4 Conditions to avoid

Do not allow the material to dry completely. Do not store together with oxidizing material.

10.5 Incompatible materials

Keep away from strong oxidizing agents, acids and bases.

10.6 Hazardous decomposition prodoucts

CO, CO_2, NH_3 and nitrogen oxides

11. TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (CE) No 1272/2008

Acute toxicity	- **Oral :** Acute toxicological classification method (Ocse 423): LD50 >2000 mg/kg (rat) - **Inhalation : :** Acute standard method of classification:: LC50 >8,5 mg/l - **Skin:** Absorption highly unlikely. There are no known effects on health
Skin corrosion/irritation	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Based on available data, the classification criteria are not met

Respiratory or skin sensitization	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Suspected of damaging the unborn child
Carcinogenicity	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
(STOT) single exposure	Not available data
(STOT) repeated exposure	Causes damage to the respiratory tract through prolonged or repeated exposure
Aspiration hazard	Causes damage to the respiratory tract through prolonged or repeated exposure

11.2 Information on others hazards

None

12. ECOLOGICAL INFORMATION

As it is not possible to provide specific data on the mixture, the following data are provided for the substance ammonium vanadate

12.1	**Toxicity**	CL50 fish (Ictalurus catus): 2.6 mg/l per 96h NOEC fish (Clarias batrachus): 0.873 mg/l per 30 dies
12.2	**Persistence and degradability**	The substance is not subject to breakdown by any natural enzymatic or chemical process
12.3	**Bioaccumulative potential**	No known effects
12.4	**Mobility in soil**	No known effects
12.5	**Results of PBT and vPvB assessment**	Not applicable
12.6	**Endocrine disrupting properties**	No known effects
12.7	**Other adverse effects**	No known effects

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Either the mixture or packages must be sent to approved facilities for the disposal of industrial wastes.

14. TRANSPORT INFORMATION

14.1	**UN number or ID number**	**ONU 3077**
14.2	**UN proper shipping name**	Environmentally hazardous substance, solid, n.o.s.
14.3	**Transport hazard class(es)**	9
14.4	**Packing group**	III
14.5	**Environmental hazards**	YES
14.6	**Special precautions for user**	n.a.
14.7	**Maritime transport in bulk according to IMO instruments**	n.a.

15. REGULATORY INFORMATION

15.1	**Safety, health and environmental regulations/legislation specific for the substance or mixture**	**Applicability**
	Reg. (CE) 1907/2006/CE Reach	YES
	Reg. (CE) 1272/2008 CLP and subsequent amendements	YES
	Reg. (CE) 2037/2000 "Substances that deplete the ozone layer"	NO
	Reg. (CE) 850/2004 "Persistent organic pollutants"	NO
	Reg. (CE) 689/2008 "Export and import of hazardous chemicals"	NO
	Substance listed in Annex I of Dir. 2012/18/UE cd Seveso	YES
	Directive 81/2008 Consolidated Act on protection of health and work safety	YES
	Directive 2014/103/UE "Adr"	YES

15.2 **Chemical safety assessment**

A chemical safety assessment was not carried out

16. OTHER INFORMATION

Changes compared to the previous edition

None

Acronim and abbreviation legend

ADR: Agreement concerning the International Carriage of Dangerous Goods by Road
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstract Service

Main references and data sources

ECHA's data bank on registered substances and soon to be registered substances:
http://echa.europa.eu/web/guest/information-on-chemicals/registered-substances

Reporting, for mixtures, which methods of evaluating the information were used for the purposes of classification.

	Classification	**Classification procedure**
Suspected of damaging fertility or the unborn child	H361	Calculation method
Causes damage to organs through prolonged or repeated exposure	H372	Calculation method

Toxic to aquatic life with long-lasting effects H411 Calculation method

Adequate training for workers to guarantee the protection of human health and the environment

- Training on the chemical risk ex Directive 81/08 Title IX dangerous substances
- Training on DPI